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ABSTRACT

The Cooperative Assessment of Experiential Learning (CAEL) project is designed to develop appropriate concepts, methods, procedures, techniques, and instruments for the assessment of experiential learning and to validate such ideas, processes, and materials through large scale tryout on many college campuses. The status report concerns CAEL's developmental phase during which experimental assessment materials and procedures were developed and described in preliminary working papers, and the validation and utilization phase. This phase included activities in the evaluation and revision of assessment procedures and materials; cooperative work on problems of implementing new assessment techniques; faculty development; and continuation of the forum and governance functions of the member institutions. (JMF)

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cael project status report

COOPERATIVE ASSESSMENT
OF EXPERIENTIAL LEARNING

HE 007 849

U S DEPARTMENT OF HEALTH,
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COOPERATIVE ASSESSMENT OF EXPERIENTIAL LEARNING (CAEL)

is a research and development project involving Educational Testing Service and an Assembly of some 200 institutions of higher education and other educational organizations. Its purpose is to advance understanding and practice in the assessment of experiential learning. Funding was provided initially by the Carnegie Corporation of New York and subsequently by the Ford Foundation, the Lilly Endowment, and the Fund for the Improvement of Postsecondary Education.

Additional copies of this status report are available, without charge, upon request. Individuals wishing periodic information about the project can request that their names be added to the CAEL mailing list. Such requests or inquiries concerning project activities, publications, or membership in the Assembly should be addressed to

CAEL
Educational Testing Service
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CAEL Project Status Report: March, 1976

Report prepared by: Warren W. Willingham
CAEL Project Director

with foreword by: Morris T. Keeton
Chairperson
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FOREWORD

The Cooperative Assessment of Experiential Learning project has been in existence for just two years. In Year 1 there was substantial progress in clarifying ideas about the nature and value of experiential learning and about ways to improve the quality and the adaptability of available assessment processes. In Year 2 the results of the project are even more visible. A book of commissioned papers is in press. Validation studies are progressing in 24 institutions on the assessment procedures developed by CAEL. Two major new projects (one in faculty development, and the other in generating operational models for incorporating experiential learning into an institution) are well under way. Again it seems important to communicate the progress of the project beyond the 200 institutions of postsecondary education currently in the CAEL Assembly. Individuals on the CAEL mailing list will be notified of the publication of new CAEL materials when they become available.

The interest of government, employers, students, and institutions of postsecondary education in increased emphasis upon experiential learning is growing. As improvements in its assessment become available, this interest will turn into a growth of the use of experiential learning in education and credentialing. These developments in turn are likely to add momentum to recurrent and continuing education for older adults, to more explicit recognition and priority for learning objectives best fostered through experience and extraclassroom performance, and to programs of instruction which capture the appeals and advantages of experiential learning for both young and old. The measurement community also will watch with interest as the arenas and the methods of assessment expand with the opportunity to use more individualized assessment programs and a greater diversity of arenas and techniques in evaluation for both institutions of formal education and for the users of their output. If these developments, finally, increase the access of the American people to postsecondary education and credentials and open up new vistas of effectiveness and cost efficiency for desirable learning options, the efforts and resources invested in the CAEL project will have been fully rewarded.

Morris T. Keeton

I. BACKGROUND—HOW CAEL STARTED

Public groups and leading educators have expressed the need for college programs that are more responsive to the educational requirements of students and society and for more rational integration of formal schooling and practical experience. In this regard nontraditional education, with its emphasis on experiential learning, has become a major reform movement. A critical problem, however, is the need for sound methods of assessing learning and accomplishments outside the classroom. Improved methods of assessment are necessary in order to increase the educative value of assessment to the student, to support and facilitate the development of nontraditional programs, and to insure the credibility of credentials earned through those programs. The CAEL project (Cooperative Assessment of Experiential Learning) is addressed explicitly to those needs.

CAEL was originally funded by the Carnegie Corporation in March, 1974. It started as a cooperative project of Educational Testing Service and ten Task Force institutions:

Antioch College
California State University and Colleges
(San Francisco State University)
Community College of Vermont
El Paso Community College
Empire State College
Florida International University
Massachusetts State College System
(Framingham State College)
Metropolitan State University
New College (University of Alabama)
Thomas A. Edison College

The initial work of the project was a joint undertaking of ETS staff and representatives of these institutions. Subsequently a number of institutions in the CAEL Assembly have become deeply involved in CAEL activities. The project is directed by a Steering Committee composed of representatives from the above institutions, several members-at-large, and others elected from the CAEL Assembly (see inside front cover).

The purpose of the CAEL project is to develop appropriate concepts, methods, procedures, techniques, and instruments for the assessment of experiential learning and to validate such ideas, processes, and materials through large scale tryout on many college campuses. While it appears quite unlikely that any standardized instruments can be developed for the assessment of highly individualized learning experiences, the project is producing a variety of student and faculty guides containing suggestions and resource materials that can be modified and adapted to local circumstances and the needs of particular groups of students. Toward that end, the project was conceived as an extensive cooperative effort incorporating the Assembly of member institutions in addition to the original Task Force institutions. The Assembly provides for systematic review and experimental use of materials and serves as a forum for discussion of important issues regarding practice and policy.

II. CAEL's DEVELOPMENTAL PHASE—MARCH 1974 TO JUNE 1975

The first 16 months of the CAEL project was planned as a developmental phase during which time experimental assessment materials and procedures would be developed and described in preliminary working papers. Additional work was commissioned as well but the first tasks were to get the undertaking organized and to decide what sort of work should be initiated.

Organization

The project was announced formally in a general mailing in May, 1974. A descriptive brochure was sent to all college presidents along with an application for membership in the CAEL Assembly. The original supposition was that the Assembly might number some 50 institutions, but that turned out to be a considerable underestimate. Even though the Steering Committee set annual dues at $250 and specified that applicants should be actively interested in participating in experimental tryout of materials, by the end of the first year the Assembly included more than 160 colleges and universities (current members are listed in Appendix A).

Throughout the country CAEL became established as a primary focus for information exchange concerning assessment of experiential learning. During its first year the project received some 2000 requests for information from agencies, institutions, and individuals. Three issues of a CAEL Newsletter were distributed that year in order to facilitate communication. Personal contacts were established with scores of agencies and institutions.

Priorities Established

As a first step in deciding what developmental work should have highest initial priority it was decided that a review of current practices would be helpful. Accordingly, the project staff and representatives from Task Force institutions completed in the spring of 1974 an extensive inventory of practices, problems, and issues concerning the assessment of experiential learning. This work involved several hundred interviews, several hundred questionnaire responses, visits to more than 40 institutions, and analysis of a great deal of published literature and many unpublished institutional reports. This inventory helped to reveal problems of major concern; the results fed into deliberations of the Steering Committee concerning project policy and direction.

During this period the Steering Committee took initial steps to outline four general priorities for the first year of the project. These four initial priorities were selected in the following manner: one instance of an important type of competence, one instance of an important method of assessment, one instance of an important arena for learning, and one instance of an important type of assessor. These were:

- Assessing the Achievement of Interpersonal Skills (an important *competence*)—Experiential learning frequently involves application of knowledge in situations that depend upon interpersonal skills and offer special advantages for developing such competences.
- Use of Portfolios in Assessing Non-Sponsored Learning (an important *method*)—Assessment of non-sponsored learning most often begins with preparation of a portfolio which presents pertinent information and documentation, and this process is of special current interest to many institutions.
- Assessing the Learning Outcomes of Work Experience (an important *arena*)—The relation of education to work has attained national significance, and the various types of "work" experience are among the most common forms of experiential learning offered for assessment.
- Use of Expert Judgment in Assessing Learning Outcomes (an important *assessor*)—Much experiential learning is highly individualized, based on unique combinations of experience, and must necessarily be assessed through some form of expert judgment rather than objective instruments.

Developmental Work

Within these four priority areas CAEL defined seven tasks as the focus for initial developmental work during 1974-75. The intended outcomes were as follows:

Assessing Interpersonal Skills

- a faculty guide to the definition, identification, and categorization of interpersonal skills, their articulation to educational goals, and assessment strategies
- an analogous student guide intended especially to facilitate student understanding of the process of assessing interpersonal skills and how such skills are developed in experiential learning situations

Use of Portfolios in Assessing Non-Sponsored Learning

- a faculty guide describing the sorts of portfolios institutions use in assessing non-sponsored learning, the variety of learning experiences for which students seek credit, and alternative assessment strategies that may be relevant
- a student guide on how to prepare a portfolio in order to describe prior learning, especially how to identify and document learning experiences and how to relate that learning to an educational goal

Assessing Learning Outcomes of Work Experience

- a description of a model for assessing learning outcomes of work experience—in this case a model that emphasizes a compendium of highly specific occupational competencies in fields such as law enforcement and data processing
- a student guide to assist students in preparing for off-campus work and related experiences—especially in understanding how to focus the learning experience, the role of assessment, and subsequent integration of the learning

Use of Expert Judgment in Assessing Learning Outcome

- a systematic guide to the use of expert judgment in evaluating individualized learning experiences—including issues, pitfalls, suggested procedures, etc.; special emphasis on oral techniques

The expected outcome of each developmental task was a guide containing model procedures, illustrations, prototype documents, and suggested ways that individual institutions can adapt assessment procedures to local circumstances and ways to use assessment to improve the student's education. The plan was to have these materials available prior to the spring 1975 meeting of the CAEL Assembly and to devote special attention at that meeting to ways in which member institutions could try out materials, modify them to fit their own needs, report back on their experience, and supply critique for subsequent revisions. That plan was carried out as scheduled. The resulting working papers are listed below under *Publications*.

In addition to ETS staff assigned to CAEL a large number of educators, researchers, and other specialists from CAEL member institutions made valuable contributions to the work of the project in connection with the development of CAEL Working Papers during 1974-75. The CAEL Executive Committee named 23 individuals to a CAEL Resource Panel to give special recognition for their substantial involvement in CAEL developmental work on the assessment of experiential learning. Because of this involvement this group is especially qualified to assist other institutions as consultants. See Appendix B for a listing of the Resource Panel as well as ETS staff who were involved in this work.

Commissioned Projects

In addition to the developmental work just described two other types of projects were commissioned. The CAEL Steering Committee initiated 20 special projects on individual campuses and provided small seed grants to help support that work. These projects fell within the four priority areas previously indicated. This work produced a number of practical reports that have proven very useful to other institutions. Some were reported in condensed form in the CAEL Resource Book (see Appendix C for a listing); five were selected for special publication as Institutional Reports to be tried out and revised during 1975-76 (see listing below under *Publications*).

In addition, a series of papers were commissioned. The CAEL Steering Committee had identified and discussed many educational, social, and philosophical issues concerning experiential learning and its assessment. These issues concerned the basic rationale of experiential learning, how it affects the institution, the conception of the B.A. degree, and the student's education, as well as the theoretical and practical problems of assessment. Because of their obvious importance, the project initiated a set of commissioned papers to address such issues in detail. The collected series, edited by Morris Keeton, is being published in book form by Jossey-Bass in spring 1976 (see Appendix D for a list of the papers). Together they should advance the level of such discussion and provide a valuable basis for dialogue.

Publications

A number of publications were produced on the basis of work completed during the first phase of CAEL. The following three

publications resulted from the "inventory" carried out in the first few months of the project.

- *CAEL Resource Book* is a binder designed to house various items distributed by the project. It includes annotated bibliographies, institutional annotations, agency annotations, a CAEL Assembly Directory, and condensed versions of the special project reports.
- Working Paper No. 1, *Current Practices in the Assessment of Experiential Learning*, (Warren Willingham, Richard Burns, and Thomas Donlon) reports on the survey and site visits conducted by the project during the spring of 1974.
- *A Compendium of Assessment Techniques* (Joan Knapp and Amiel Sharon) brings attention to various techniques and methods that have potential for assessing experiential learning. This paper was printed for initial distribution as Working Paper No. 2. It was later reprinted and is now available as a CAEL special report.

Most of the work on the series of CAEL Commissioned Papers was completed during the first phase of the project. Three of these papers were distributed as Working Paper No. 3 which is now out of print. The entire series will be published formally in the spring of 1976 as:

- *Experiential Learning: Rationale, Characteristics, and Assessment* (Morris Keeton, Ed.) San Francisco: Jossey-Bass, 1976.

The following series of Working Papers were produced on the basis of developmental work jointly staffed by ETS and the task force institutions:

- Working Paper No. 4, *The Learning and Assessment of Interpersonal Skills: Guidelines for Administrators and Faculty* (Paul Breen, Thomas Donlon, and Urban Whitaker), suggests procedures for identifying interpersonal skills, articulating them to student goals, discovering and utilizing experiential situations in which interpersonal skills can be acquired, and assessing the learning of interpersonal skills for purposes of granting academic credit.
- Working Paper No. 5, *The Learning and Assessment of Interpersonal Skills: Guidelines for Students* (Paul Breen, Thomas Donlon, Urban Whitaker), is a student version of Working Paper No. 4.
- Working Paper No. 6, *A Guide for Assessing Prior Experience Through Portfolios* (Joan Knapp), presents an eight-stage framework for portfolio assessment and describes practical procedural alternatives for each stage. Sample institutional materials are included in the appendix.
- Working Paper No. 7, *A Student Handbook for Preparing a Portfolio for the Assessement of Prior Experiential Learning* (Aubrey Forrest), is a student handbook generally parallel to Working Paper No. 6.
- Working Paper No. 8, *A Task-Based Model for Assessing Work Experience* (Amiel Sharon), presents a model for assessing and crediting specific competencies acquired in occupational fields. Applications to data processing, law enforcement, and secretarial science are described.
- Working Paper No. 9, *A Student Guide to Learning Through College-Sponsored Work Experience* (Hadley Nesbitt), is designed to help students plan and integrate learning derived from college-sponsored work programs. It is organized around 11 basic steps and includes checklists and work sheets. (A companion faculty guide is in preparation.)
- Working Paper No. 10, *The Use of Expert Judgment in the Assessment of Experiential Learning* (Richard Reilly, Ruth Churchill, John Clark, Arnold Fletcher, Myrna Miller, Judith Pendergrass, and Jane Porter), discusses problems, principles, and procedures in using expert judgment in interviewing, product assessment, performance assessment, and the assessment of free response written materials.

Five special project reports were selected for publication in the following series of Institutional Reports:

- Institutional Report No. 1, *The Use of Expert Judgment in the Assessment of Demonstrated Learning in the Antioch College Yellow Springs Adult Degree Completion Program* (Robert Lewis, Elaine Comegys, Loraine Shepard, Shannon Groves), describes faculty workshops on the evaluation of demonstrated learning.
- Institutional Report No. 2, *Interpersonal Learning in an Academic Setting: Theory and Practice* (Miriam Tatzel and Lois Lamdin), was prepared at Empire State College. It emphasizes the incorporation of interpersonal learning into the formal educative process.
- Institutional Report No. 3, *Evaluation and Expert Judgment* (Jane Permaul, Joan Steele, Marina Miko, Laird Hayes), was prepared at the University of California at Los Angeles. It emphasizes the identification of competencies, the identification of expert judgment, and the assessment procedures relevant to sponsored off-campus programs.
- Institutional Report No. 4, *The Refinement and Modification of an Instrument for Assessing the Achievement of Interpersonal Skills of Social Work Students* (Kurt Spitzer and Sue Smock) is a report prepared at Wayne State University. It describes the application of a checklist for assessing performance in a field work practicum.
- Institutional Report No. 5, *Guidelines and Procedures for the Assessment of Experiential Learning and for the Selection and Training of Field Experts* (Frank Christensen), describes how William Rainey Harper College established tentative procedures for assessing non-sponsored experiential learning.

CAEL also published the following two tape/slide presentations that were produced by Paul Breen and Urban Whitaker as an outgrowth of a special project at San Francisco State University. Each is useful either as an introduction to CAEL Working Papers 4 and 5, or independently for classes and in-service programs.

- *Interpersonal Skills: An Analytical Framework* is an adaptation of Sidney Fine's theory of human performance applied to the learning and assessment of interpersonal skills. It includes charts, diagrams, case studies, and examples for both prior learning and sponsored learning. 160 color slides and 32-minute synchronized audio tape.
- *Interpersonal Literacy* develops the concept of interpersonal literacy as "knowing when and how to communicate what to whom in order to achieve specified goals." 90 color slides and 14-minute synchronized audio tape.

III. CAEL's VALIDATION AND UTILIZATION PHASE—JULY 1975 TO DECEMBER 1976

In early 1975 CAEL approached the end of its developmental phase and the funding that supported that work. At that time the Steering Committee faced three types of critical questions concerning CAEL's future direction.

First, there was the question of what direction CAEL should take with respect to its organization. Should it continue as a research and development project with the participation and governance of a limited group of task force institutions, or should it actively involve more institutions in its work and move progressively toward a governance structure more directly representative of the CAEL Assembly as a whole? The Steering Committee chose the latter course. As an interim step in moving toward more representative governance the Steering Committee developed a plan whereby five members of the Steering Committee were elected by the Assembly in the summer of 1975 (Richard Allen, Barbara Barbato, John Duley, Sheila Gordon, and William Thomas). At the same time the Steering Committee decided that, in the main, participation in the next phase of CAEL's work would be open to all Assembly members and that institutional involvement would be decided on a competitive basis.

A second question concerned the direction CAEL should take with respect to its work; i.e., what activities should have greatest priority through the remainder of 1975 and 1976? The original CAEL plan had foreseen a developmental phase during the first 16 months of the project, followed by validation and utilization of the materials developed. The Steering Committee judged that plan to be basically sound. It was agreed that the most needed activities could be organized into four components as follows:

- *Validation.* The evaluation and revision of assessment procedures and materials developed in the first year of the project (through widespread experimental use in Assembly institutions and through a series of field research studies).
- *Operational Models.* Cooperative work on problems of implementing new assessment techniques into the existing administrative procedures, academic policies, and organizational structures of institutions.
- *Faculty Development.* The improvement of faculty understanding of the rationale of experiential learning and the techniques of assessing its learning outcomes.
- *Assembly Activities.* Continuation of the forum and governance functions represented by the semi-annual meeting, committee work, publications, and clearing house activities.

A third question facing the Steering Committee was how to fund these activities. While some income could be expected from membership dues and sale of publications, it was evident that considerable additional financial support would be necessary to deal effectively with these problems of assessing experiential learning in the depth and scope that they deserved. It was also evident that support in the magnitude needed would require funding from several sources. For this purpose the Steering Committee authorized, reviewed, and finally approved an integrated set of proposals that were submitted to four foundations. Recognizing the importance of the work and the broad resources CAEL had successfully organized, all four foundations responded positively and provided funds necessary to carry out all of the activities proposed.

The Carnegie Corporation and the Ford Foundation each contributed approximately $200,000 to support a joint proposal covering the validation component and the Assembly activities (the latter is expected to be largely self-supporting through dues and sale of publications). The Fund for the Improvement of Postsecondary Education provided approximately $200,000 for first year support of the Operational Models project. The Lilly Endowment granted $200,000 for work in the area of Faculty Development. Appendix E shows the combined budgets for these activities (Exhibit 1) and the major sources of income and expense anticipated for 1973 through 1977—from the period when the project was still in the planning stage through completion of all activities covered by current grants (Exhibit 2).

The following paragraphs outline the nature of the activities and the work involved in the four major components in this phase of CAEL. Most of this work will be completed by December 1976 though some extends into 1977. These activities are described here only in sufficient detail to make clear the purpose of the work, the progress to date, and the intended outcomes. As will be noted several extended extended progress reports covering specific aspects of this work (Field Research, Operational Models, and Faculty Development) are available by writing to CAEL, Educational Testing Service, Princeton, N.J., 08540.

Validation

During its developmental phase, CAEL produced a series of Working Papers and Institutional Reports that include descriptions of competencies, suggested assessment procedures, specimen materials, and so on. While the Steering Committee regarded these materials as an important step forward and quite suitable for experimental use, it was recognized that these experimental materials required critical evaluation and could undoubtedly be improved in a variety of ways. The CAEL Assembly includes a broad cross-section of American higher education and a plan for directly involving these institutions in the validation of developmental work represents a unique model for ensuring that CAEL outcomes are sound and for facilitating direct benefit of CAEL work in many institutions. This validation work involves three types of activities and thus three options for participation by CAEL institutions:

1. *Critical Review.* A systematic process of critical review by those parties likely to be concerned with or affected by assessment. (Level 1)
2. *Experimental Tryout.* Careful evaluation through actual use by practitioners and students, and systematic development of local "adaptations" in order to fit assessment procedures to the character and demands of local situations. (Level 2)

3. *Validation Studies*. Empirical studies that help a) to determine and improve the educational and technical quality of different assessment methods, and b) to reveal important characteristics of assessment procedures that tend to enhance or detract from the reliability, validity, and usefulness of local applications. Also, development of validation models whereby individual institutions can monitor quality assurance of assessment procedures, especially with respect to the consistency of assessment and to achieving consensus regarding its content and process.

More than 50 CAEL institutions are involved in validation work at Level 1 or 2 (see Appendix F for a listing) and an additional 24 institutions are participating more extensively through their involvement in 11 CAEL validation studies. This field research entails both model studies carried out by the institutions and provision of data for multi-institutional studies of assumptions and practices concerning assessment of experiential learning (see Appendix G for a listing of individuals and institutions participating in Field Research). Two major outcomes of this work are anticipated:

—revision and improvement of the current series of Working Papers and Institutional Reports;

—a major validation report describing the outcome of this revision process, the results of the field research, and selected reports of exemplary institutional studies of quality assurance in assessment.

Feedback concerning the tryout of materials will be discussed at the May 1976 Assembly Meeting, results and implications of the field research will be discussed at the fall 1976 Assembly Meeting. The revised assessment materials and the validation report are scheduled for publication in fall and early winter 1976. For those readers wishing more information, a *Progress Report on CAEL Field Research* is available upon request. It provides a more detailed description of the studies and a rationale of the validation work.

Operational Models

In considering how new assessment materials need to be utilized in institutions it is clear that there are many problems of implementation. Assessment does not exist as an isolated process, but is embedded in a context of existing academic procedures, policies, and people.

The Steering Committee recognized a need to develop better means whereby institutions might systematically examine the most important problems and implications in implementing new assessment procedures and various types of programs involving experiential learning. It was felt that a potentially fruitful approach would be for individual institutions to develop what might be called "operational models"—i.e., models of how the assessment process operates in particular educational contexts.

The basic plan was to select 12 institutions facing rather different implementation problems and to provide a cooperative context for each to devote special attention to their particular concern over a period of nine months. Some have focused on the problem of defining standards, some have focused on the problem of financing learning and assessment programs. The intended outcome is a series of 12 Institutional Reports. Each report will describe for one institution an operational model that shows how the assessment process is related to other academic programs and procedures in the institution—a model improved in conception as well as practice due to the special effort and attention facilitated by the cooperative project. A recent CAEL publication includes three background papers that describe this general approach in detail:

- *Implementing a Program for Assessing Experiential Learning*, CAEL Project Report, February 1976.

At this writing, representatives of the 12 institutions have participated in an initial workshop and are well into the development of the individual models (see Appendix H for a listing of the institutions and individuals involved in this work). Following a second workshop in spring 1976, the institutional models will be completed and distributed as CAEL Institutional Reports, probably in late summer.

In order to enhance dissemination and utilization of this work each of the 12 institutions will hold a local "dissemination workshop" for interested institutions in its immediate area. In addition, the institutions will hold national workshops at the fall 1976 CAEL Assembly Meeting at which time a wide spectrum of new participants will be able to profit from the problem-solving of the original 12. Readers interested in further information concerning this project should request a copy of *Progress Report for Operational Models Project*.

Faculty Development

As a further aspect of the need for effective utilization of CAEL work to date, the Steering Committee recognized that the state of the art in the assessment of experiential learning is uneven at best. Critical to the meeting of the need for more experiential learning and better assessment of its outcomes are the outlook, understanding, skills, and effectiveness of faculty who conduct the learning or supervise the assessors and sanction or act as those who provide credentials.

Even in institutions which already have a few years of experience in experiential learning (e.g., institutions using cooperative education, those using off-campus programs and independent study, etc.), there is much interest in training faculty to clarify and choose learning objectives, to assess learning outcomes, and to redesign learning strategies in the light of the result of evaluations as to what was learned and how it was learned. The faculty development effort needed to respond to these calls must cope with a number of interacting needs: for information (about what is possible, what has been done, what works and what does not, etc.), for concept development and value clarification, and for skill building.

The CAEL Faculty Development program attempts to meet these needs. It involves a project staff of five, who are working with 12 institutional teams through three faculty development workshops during the first year (see Appendix I for a listing of institutions and participants). One objective of the first year is to train the 12 teams in an interactive context—a workshop followed by work on the home campus, followed by another workshop, and so on. Another important objective of the program is to create a magnification effect; i.e., the program is targeted on training trainers. During the second year

the 12 teams will run a series of 12 regional workshops for a much larger circle of institutions.

One critical aspect of the program is its problem solving emphasis. Through heavy reliance on simulation, case studies, and role-playing this development program engages all participants in the immediate problems that faculties frequently face in fostering and assessing experiential learning. Another central aspect of the program is to produce in the first year an array of training materials and aids that will be useful in the series of workshops during the second year. Participants in those regional workshops will reap the benefits of the prior year's experience and proven techniques.

Another interesting feature of the Faculty Development program is the fact that potential participants in the second year series of workshops will have an opportunity to shape the program of the individual workshops through prior discussion of their interest and needs. This will occur at the spring 1976 CAEL Assembly Meeting at which time a detailed progress report and description of the program will be followed by small meetings of interested individuals, grouped by geographic region. A more detailed *Progress Report on the Faculty Development Program* is available upon request.

Assembly Activities

During the past year the activities of the CAEL Assembly have expanded in both size and scope. The Assembly itself has grown to 200 member institutions and the Assembly meetings now attract some 300 individuals. But the more significant growth in the associational character of CAEL has been in the quality and breadth of participation of its members. This growth is clearly evident in each of the two principal forms of Assembly activities: active participation in the work of the project and the semi-annual meetings of the Assembly.

In the developmental phase of CAEL only a dozen or so institutions were working directly on CAEL projects. The exhibit in Appendix F reveals a drastically different situation at present. The number of institutions actively engaged in CAEL projects (i.e. in addition to participation at meetings) can be summarized as follows:

Type of Participation	*Number of Institutions*
Tryout of Materials	54
Field Research	24
Faculty Development	16
Operational Models	12
Preparing Assessment Reports	11
Steering Committee	17

Taking account of the fact that many institutions are engaged in more than one type of work there are 86 different institutions of all types throughout the country that have joined in the effort to develop improved methods for assessing experiential learning. It can be said that the Steering Committee achieved its avowed purpose of broadening participation in CAEL.

It is certainly true that these institutions are contributing a great deal more in staff resources than could ever be reimbursed through the limited resources available to CAEL. In cases where there is some reimbursement through participation in CAEL grants the Steering Committee took care to insure that participating institutions were selected objectively on merit. For that purpose institutions were invited to apply in June 1975 for the several areas of intensive work available. An external committee (Leland Medsker, Chairman; Patricia Thrash; and William O'Connell) was appointed to select the most promising applicants. The resulting strength and depth in this group of institutions is evident.

A corresponding increased breadth in the Assembly programs is also evident. Whereas the early Assembly meetings placed heavy emphasis upon reporting the work of the project, programs during the past year have reflected a broad range of interests concerning experiential learning, engaged large numbers of program participants, and ventured into a variety of program formats. But there is one consistent element—a tradition of stimulating guest speakers (e.g., Virginia Smith, Cyril Houle, Harold Hodgkinson) continues. At this writing, speakers for the spring 1976 meeting include Patricia Cross, James Hall, Carl Rogers. Experience consistently shows that very busy people welcome the opportunity to speak to the CAEL constituency.

IV. CAEL's FUTURE

It is evident that CAEL is serving as an organizational umbrella for a great outpouring of energy, commitment, and work on the part of many people. It is equally evident that the challenge is, in educational and social terms, of great importance. The product of this work must speak for itself, but what can CAEL be said to have accomplished in general terms? What resources have been created that did not previously exist? The most significant include:

- an established forum of meetings and other means of communication that foster continued dialogue on important problems concerning experiential learning;
- extensive products and publications from three years of developmental work: assessment materials, training aids, institutional reports, student guides, faculty handbooks, reference materials, research reports, case studies, models and prototypes;
- developed professional resources and technical capability for dealing with assessment problems at an advanced level of expertise and understanding—especially institutional problems concerning implementation of assessment methods and associated needs for faculty development;
- a proven cooperative framework for undertaking research and development on problems that transcend institutional interests;
- a viable organization of institutions with a common interest that can assume responsibility for continued attention to important educational problems concerning experiential learning.

It was anticipation of these resources and the work yet undone that persuaded the Steering Committee to work toward a continuing CAEL—an association to be incorporated in summer 1976. The response to this proposition has been overwhelmingly positive. The broadened mission of CAEL would be "to help institutions of higher education increase their ability to define, assess, credit, sponsor, and evaluate experiential learning and experiential learning programs."

Specific objectives and priorities for future work of CAEL are still under study and will be discussed extensively by CAEL committees and in subsequent Assembly meetings. Similarly, the organization and governance of CAEL, Inc. are yet to be decided pending study and discussion among member institutions. There is, however, the specific plan already discussed at the October 1975 Assembly Meeting to constitute by summer 1976 a new Board of Directors for CAEL, Inc. consisting of the present six-person Executive Committee and nine new members elected by the Assembly.

The Steering Committee is resolved to maintain the name "CAEL" that is now well known among educators. The words behind that acronym, when CAEL changes to CAEL, Inc., are to be decided. In selecting a new identity CAEL must, of course, give first priority to heavy commitments already represented in current grants that extend through 1976 and somewhat beyond. While the project fulfills that important work, participants take a uniformly positive view of the future of experiential learning and its importance to education. In looking to a new CAEL there is much promise.

As interest in experiential learning grows, one primary promise is that improvements in its assessment will encourage wider adoption. The resulting implications for society are increased possibilities of continuing education throughout life, better recognition of talent and direction of learning, better integration of education and work, and better allocation of educational resources.

For those interested in educational assessment, a promise of this work is greater awareness of the problems and potential of assessment of experiential learning and the ways in which useful methods developed in other areas can be applied with useful effect to educational settings. Similarly, many of the techniques being developed for use in experiential learning will surely find effective applications in more traditional learning settings.

For the individual learner the promise is to foster a greater self-understanding through the use of assessment that informs and aids, to increase access to higher education, and to encourage formal learning that builds effectively on a base of experiential learning. For higher education, both traditional and nontraditional, the promise is that CAEL can help to support the credibility of the learning process and its results, that it can encourage more traditional institutions to consider experiential learning, either sponsored or non-sponsored, and that it can result in greater understanding of the meaning and value of experiential learning to all students.

APPENDIX A

CAEL ASSEMBLY

MEMBER INSTITUTIONS

ACTION
Adelphi University
Alabama Consortium for the Development of Higher Education
Alderson-Broaddus College
Alternative Education Development Systems, Inc.
Alverno College
American College
Antioch College
Appalachian State University
Augustana College
Barat College
Berea College
Bergen Community College
Berkshire Community College
Bethel College
Black Hawk College
Bloomfield College
Brevard Community College
Broward Community College
Burlington Community College
Bunker Hill Community College
California State College at Bakersfield
California State College, Dominguez Hills
California State University, Chico
California State University, Fresno
California State University, Long Beach
California State University, Los Angeles
California State University and Colleges
Central Michigan University
Chapman College
Chatham College
City Colleges of Chicago
College of Saint Benedict
College of St. Rose
College of the Southwest
Columbia College
Columbia State Community College
Community College of the Air Force
Community College of Vermont
The Consortium of California State University and Colleges
Creighton University
CUNY Baccalaureate Program
Dartmouth College
Delaware County Community College
Delta College
De Paul University
Drake University
Dr. Pepper Company
Dyke College
East Central College Consortium
East Texas State University
Eckerd College
Edinboro State College
Educational Testing Service
Elmhurst College
El Centro College
El Paso Community College
Empire State College
Everett Community College
Evergreen State College
The Fielding Institute
Florida Department of Education
Florida International University
Fordham University
Fort Wright College
Framingham State College
Friends World College
Golden West College
Governors State University
Harford Community College
Hartwick College
Hofstra University
ICS — Center for Degree Studies
Illinois Board of Higher Education
Illinois Board of Governors of State Colleges and Universities
Illinois State University
Jersey City State College
The Johns Hopkins University Evening College and Summer Session
Johnston College — University of Redlands
Justin Morrill College — Michigan State University
Kansas State University
Kent State University
Kentucky State University
King's College
LaGuardia Community College
Lakewood Community College
La Verne College
Lone Mountain College
Luzerne County Community College
Macalester College
Madonna College
Mars Hill College
Massachusetts State College System
Memphis State University
Mercy College
Metropolitan College — St. Louis University
Metropolitan State College
Metropolitan State University
Miami-Dade College
Milwaukee Area Technical College
Monroe Community College
Montana State University
Montclair State College
Moraine Valley Community College
Morningside College
Mount Mary College

Mount Union College
Muskingum College
Northampton County Area Community College
North Carolina Agricultural and Technical State University
North Central College
Northeastern Illinois University
Northern Virginia Community College
Notre Dame College
Ohio University
Orange Coast College
Our Lady of Angels College
Our Lady of the Lake University
Pace University
Paul Smith's College
Pennsylvania Department of Education
Peralta College for Non-Traditional Study
Point Park College
Princeton University
Ramapo College of New Jersey
Regional Learning Service of Central New York
Rochester Institute of Technology
Rockland Community College
Roosevelt University
Rutgers University — University College
Sacred Heart University
Salem State College
Saint Thomas Aquinas College
San Francisco State University
Sangamon State University
Sinclair Community College
Southeastern Massachusetts University
Southern Illinois University at Carbondale
Southern Oregon College
Stephens College
Sterling College
Staten Island Community College
State University College, Plattsburgh
State University College, Buffalo
State University of New York at Buffalo
Susquehanna University
Syracuse University
Temple University
Texas Christian University
Texas Southern University
Thomas A. Edison College
Towson State College
Union College
Union for Experimenting Colleges and Universities
Universidad Boricua
University of Akron
University of Alabama, Birmingham
University of Alabama, University
University of Arkansas, Little Rock
University of California, Los Angeles
University of Chicago
University of Cincinnati
University of Dayton
University of Evansville
University of Houston
University of Illinois at Chicago Circle
University of Kentucky
University of Maryland, Baltimore County
University of Maryland, College Park
University of Massachusetts, Boston
University of Minnesota
University of Missouri
University of New Hampshire System
University of North Carolina
University of Northern Colorado
University of Oregon
University of Plano
University of South Florida
University of Tennessee, Chattanooga
University of Tennessee, Nashville
University of Texas, Dallas
University of Wisconsin, Green Bay
Up With People
Urbana College
Valencia Community College
Villanova University
Virginia Commonwealth University
Virginia Polytechnic Institute
Washington International College
Washington University
Waukesha County Technical Institute
Wayne State University
Webster College
Westminster College
Whatcom Community College
Wichita State University
William Rainey Harper College
Winona State University

ETS Staff for Assembly

John Summerskill, Special Consultant for CAEL, Inc.
John R. Valley, Director of CAEL Assembly Activities
Diana B. Rees, Administrative Associate

APPENDIX B

CAEL RESOURCE PANEL

The CAEL Resource Panel consists of those institutional representatives recognized by the Executive Committee as having contributed significantly to the CAEL developmental work during 1974-75.

Bernice Biggs
Coordinator, General Studies
San Francisco State University

Paul Breen
Assistant Project Director
San Francisco State University

Harriet Cabell
Associate Director
External Degree Program
New College, University of Alabama

Anne Calhoun
Assistant Professor
Metropolitan State University

Ruth Churchill
Dean for Educational Evaluation and Research
Antioch College

John L. D. Clark
Consultant
Thomas A. Edison College

Laurent Daloz
Director of Learning Services
Community College of Vermont

John S. Duley
Director, Field Experience Program
Justin Morrill College
Michigan State University

Arnold Fletcher
Vice President for Academic Affairs
Thomas A. Edison College

Aubrey Forrest
Director of Assessment
Metropolitan State University

Sheila Gordon
Associate Dean for Cooperative Education
LaGuardia Community College

Jan Hagberg
Assistant Professor
Metropolitan State University

Leah Harvey
Instructor, Office of Assessment
Metropolitan State University

Eugene J. Kray
Dean of Community Education
Delaware County Community College

Peter Meyer
Professor of Social Work
Florida International University

Myrna Miller
Coordinator, Assessment Services
Community College of Vermont

Dabney Park, Jr.
Director, External Degree Program
Florida International University

Judith Pendergrass
Director of Admissions and Records
Metropolitan State University

Martha Sachs
Director of Adult Education
Ramapo College of New Jersey

Robert F. Sexton
Executive Director
Office for Experiential Education
University of Kentucky

Mahesh Sharma
Acting Coordinator for Evaluation
Educational Development Center

Bernard Sloan
Coordinator, Out-of-Class Learning
New College, University of Alabama

Urban G. Whitaker
Dean of Undergraduate Studies
San Francisco State University

The following ETS staff collaborated on
CAEL developmental work during 1974-75:

Thomas F. Donlon
Joan E. Knapp
Hadley S. Nesbitt
Jane Porter
Richard R. Reilly
Amiel T. Sharon

APPENDIX C

SPECIAL PROJECT REPORTS

1. *Assessing Interpersonal Skills in the Human Services* (Lila McQueen, Richard Fehnel, Janet Moursund, Ricardo Munoz, Norman Sundberg)
   University of Oregon
2. *Assessment of Work Outcomes in Business Administration* (Nirelle J. Galson, L. Richard Oliker)
   Syracuse University
3. *Awarding Credit for Prior Learning Experiences: A Manual for More Traditional Institutions of Higher Education* (Edward H. O'Neil, Bernard J. Sloan)
   New College, University of Alabama
4. *Development of a Resume/Portfolio, Student Assessment Handbook, and a Student Training Institute* (Joseph R. Palladino)
   Framingham State College
5. *A Diagnostic Approach to the Assessment of Experiential Learning (Interim Report)* (John L. D. Clark)
   Thomas A. Edison College
6. *Educational Debriefing* (William A. Laramee)
   Berea College
7. *Evaluation and Expert Judgment** (Jane S. Permaul, Joan D. Steele, Marina Miko, Laird Hayes)
   University of California, Los Angeles
8. *Exploring Alternative Learning Methods at El Paso Community College* (Jose Rivera)
   El Paso Community College
9. *Guidelines and Procedures for the Assessment of Experiential Learning and for the Selection and Training of Field Experts** (Frank A. Christensen)
   William Rainey Harper College
10. *Home Management and Human Service Competencies* (Ruth S. Nickse)
    Regional Learning Service of Central New York
11. *Identification and Articulation of Specific Learning Outcomes of Different Types of Experiential Education* (Edward L. Angus)
    Mars Hill College
12. *Interpersonal Learning in an Academic Setting: Theory and Practice*** Miriam Tatzel, Lois Lamdin)
    Empire State College
13. *Interpersonal Skills: Their Identification, Classification and Articulation to Student Goals* (Urban Whitaker, Paul Breen)
    San Francisco State University
14. *The Panel Review of Architectural Education* (Steven B. Edwins)
    University of Kentucky
15. *The Refinement of an Instrument for the Assessment of the Achievement of Interpersonal Skills of Graduate Social Work Students and for its Modification for Applicability to Undergraduate Social Work Students** (Kurt Spitzer and Sue Smock)
    Wayne State University
16. *Student Self-Assessment of Non-Sponsored Learning* (Laurent Daloz)
    Community College of Vermont
17. *A Taxonomy of Basic Competencies in the World of Work* (Dabney Park, Nancy Wylie)
    Florida International University
18. *The Use of Expert Judgment in the Assessment of Demonstrated Learning in the Antioch College Yellow Springs Adult Degree Completion Program*** (Robert Lewis, Elaine Comegys, Loraine Shepard, Shannon Groves)
    Antioch College
19. *Use of Portfolios in the Assessment of Prior Experiential Learning* (Leah Harvey, Aubrey Forrest)
    Minnesota Metropolitan State College
20. *The Use of Portfolios in the Assessment of Prior Learning* (Barbara Ann Barbato)
    Webster College

*The complete version of this report was published as a CAEL Institutional Report. A condensed version appears in the CAEL Resource Book.
**The Resource Book does not include a condensed version of this report, but the full version was published as a CAEL Institutional Report.

APPENDIX D

COMMISSIONED PAPERS

The following CAEL commissioned papers, edited by Morris Keeton, will be published by Jossey-Bass in spring 1976 under the title *Experiential Learning: Rationale, Characteristics, and Assessment.*

The Search for an Integrating Logic (Virginia Smith)
Credentials for the Learning Society (Morris Keeton)
Deep Traditions of Experiential Learning (Cyril O. Houle)
Credentialing the Disenfranchised (Alan Gartner)
Valid and Invalid Rationales (Melvin Tumin)
Differences Between Experiential and Classroom Learning (James S. Coleman)
Developmental Change as a Major Outcome (Arthur W. Chickering)
Campus and Workplace as Arena (Sheila Gordon)
Learning Through Work and Education (Paul E. Barton)
Cost Effectiveness of Programs (George B. Weathersby and Armand Henault)
The Importance of Assessing Learning (Robert Kirkwood)
Tools and Methods of Evaluation (Aubrey Forrest, Joan Knapp, and Judith Pendergrass)
Assessors and Their Qualifications (Urban G. Whitaker)
Critical Issues and Basic Requirements for Assessment (Warren W. Willingham)

APPENDIX E

CAEL BUDGET

Exhibit 1. CAEL Expense Budgets by Primary Funding Source: 1975-1977

(in thousands)

	Assembly/ Validation (Carnegie/Ford)	Operational Models (FIPSE)	Faculty Development (Lilly)	Grand Total
Income				
1. Grant	$406.8	$297.9*	$200.0	$904.7
2. Publications	52.0	—	7.5	59.5
3. Assembly	125.0	—	—	125.0
4. Workshops	—	—	52.7	52.7
Total Income	$583.8	$297.9	$260.2	$1,141.9
ETS Expenses				
1. ETS Staff	$183.4	$91.6	$60.2	$335.2
2. Consultants	21.9	9.1	3.0	34.0
3. ETS Staff Travel	26.8	10.4	6.7	43.9
4. Supplies & Services	132.6	36.2	52.2	221.0
5. Gen. & Admin. Exp.	68.7	33.8	21.1	123.6
6. Subtotal (Lines 1-5)	$433.4	$181.1	$143.2	$757.7
7. ETS Contribution	(38.0)	—	(10.0)	(48.0)
8. Subtotal	$395.4	$181.1	$133.2	$709.7
Institutional Expenses				
9. Staff & Service	$125.5	$90.0	$106.0	$321.5
10. Travel	62.9	26.8	21.0	110.7
11. Subtotal (Lines 9-10)	$188.4	$116.8	$127.0	$432.2
12. Tot. Exp. (Lines 8 & 11)	$583.8	$297.9*	$260.2	$1,141.9

*Renewal representing 1/3 of this total is pending.

Exhibit 2. Summary of CAEL Income and Expenses: 1973-1977

(in thousands)

	1973-1975	1975-1977	Total 1973-1977
Income			
1. Grants	$821.0	$904.7	$1,725.7
2. Publications	3.8	59.5	63.3
3. Assembly	48.9	125.0	173.9
4. Workshops	—	52.7	52.7
Total Income	$873.7	$1,141.9	$2,015.6
Expenses			
1. ETS	$522.6	$757.7	$1,280.3
2. Institutional	415.0	432.2	847.2
Total Expenses	$937.6	$1,189.9	$2,127.5
ETS Contribution	(72.9)	(48.0)	(120.9)
Expenses	$864.7	$1,141.9	$2,006.6

APPENDIX F

INSTITUTIONS PARTICIPATING IN CAEL WORK

Institution	Tryout*	Field Research**	Faculty Development	Operational Models	Assessment Reports	Steering Committee
Alverno College		X	X			
American College	X					
Antioch College		X	X	X	X	X
Augustana College	X					
Berea College	X					
Bethany College	X					
Black Hawk College	X					
Brevard College	X					
California State College at Bakersfield	X					
California State University and Colleges				X		X
California State University at Los Angeles	X					
Central Michigan University	X					
College of Saint Benedict	X					
College of Saint Rose	X					
Community College of Vermont		X		X	X	X
Delaware County Community College		X		X		
Delta College	X					
Eckerd College	X					
El Paso Community College	X					X
Empire State College		X	X		X	X
Everett Community College	X					
Florida International University	X			X		X
Fort Wright College	X					
Golden West College	X					
Governors State University		X	X			
Hartwick College		X	X			
Johns Hopkins University	X					X
Johnston College, University of Redlands	X					X
Justin Morrill College, Michigan State University	X		X		X	X
Kansas State University	X					
Kent State University	X					
Kentucky State University	X					

Institution	Tryout	Field Research	Faculty Development	Operational Models	Assessment Reports	Steering Committee
King's College	X					
LaGuardia Community College		X			X	X
Lone Mountain College	X					
Luzerne County Community College	X					
Macalester College		X				
Madonna College	X					
Memphis State University				X		
Metropolitan College, Saint Louis University		X				
Metropolitan State College	X					
Metropolitan State University		X	X	X	X	X
Miami-Dade Community College	X					
Mount Mary College	X					
Mount Union College	X		X			
New College, University of Alabama		X	X			X
North Carolina Agricultural and Technical State University		X	X			
Notre Dame College		X				
Our Lady of Angels College	X					
Our Lady of the Lake College	X					
Rochester Institute of Technology	X					
Roosevelt University	X					
Sacred Heart University	X					
Saint Thomas Aquinas College	X					
San Francisco State University		X	X	X	X	
Southern Illinois University	X					
Southern Oregon State College	X					
State University College at Brockport	X					
Staten Island Community College		X	X			
Stephens College		X				
Temple University			X			
Texas Christian University		X				
Texas Southern University	X					X
Thomas A. Edison College		X			X	X
Towson State College	X					
Union College	X			X		
University of Akron		X	X			

Institution	Tryout	Field Research	Faculty Development	Operational Models	Assessment Reports	Steering Committee
University of California, Los Angeles		X			X	
University of Chicago						X
University of Cincinnati	X					
University of Dayton	X					
University of Evansville	X		X			
University of Kentucky	X			X		
University of Maryland	X					
University of Massachusetts	X					
University of Minnesota	X					
University of Missouri		X				
University of Oregon		X	X	X		
Virginia Polytechnic Institute and State University	X					
Washington University						X
Wayne State University					X	
Webster College				X		X
Whatcom Community College	X					
Wichita State University		X				
William Rainey Harper College					X	
Winona State University	X					

*"Tryout" is described in text as Level 1 or 2 validation work.
**Those institutions involved in "Field Research" are automatically involved in "Tryout."

APPENDIX G

FIELD RESEARCH PARTICIPANTS

Institutions/Representatives

Alverno College
*Georgine Loacker

Antioch College
*Ruth Churchill
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Community College of Vermont
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Larry Daloz

Delaware County Community College
*Eugene Kray
Lori Hultgren

Empire State College
*Albert Serling

Governors State University
*Betty Stanley
Robert Press

Hartwick College
*Edith Daly
Diana Christopulos
David Jeffres

Macalester College
*Jack Rossman
Charles Green

Metropolitan College, St. Louis University
*Virginia Beard
Dorothy Fenwick
Katie Hotz

Metropolitan State University
*James Deegan
Janet Hagberg

New College, University of Alabama
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Harriet Cabell

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Institutions/Representatives

Notre Dame College
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San Francisco State University
*Urban Whitaker
Paul Breen

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Kathryn Vegso

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*Jane Permaul

University of Missouri
*John Mowrer

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Richard Fehnel
Janet Moursund

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*Sheila Gordon
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Amiel Sharon, Program Director
Jane Porter, Senior Research Assistant

*Site Coordinator

APPENDIX H

OPERATIONAL MODELS PARTICIPANTS

Institutions/Representatives

Antioch College
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- Royce Delmatier
- Helen Cheney Gilde
- Judson Grenier

Delaware County Community College
- Eugene Kray
- Lorraine Hultgren

Florida International University
- Dabney Park, Jr.
- Peter Meyer
- Jules Pagano
- Nancy Wylie

Memphis State University
- Robert Hatala
- Richard Rania

Metropolitan State University
- James Deegan
- Annie Belle Calhoun
- Charles Libera

Institutions/Representatives

San Francisco State University
- Bernice Biggs
- Edith Arrick
- Thomas Finn
- John Kinch
- Gerry Manning
- Edwin Williams
- Roger Williams

Union College
- Dale Myers
- Joe Thomas

University of Kentucky
- Robert Sexton
- Barbara Hofer
- Ernest Yanarella

University of Oregon
- Norman Sundberg
- Richard Fehnel

Webster College
- R. Lynn Kelley
- Terrence MacTaggart
- Robert Spencer

ETS Staff

Warren Willingham, Project Director
Hadley Nesbitt, Project Manager
John Fremer, Measurement Consultant
Dean Jamison, Finance Consultant
Barbara Burgess Wolfe, Finance Consultant

APPENDIX I

FACULTY DEVELOPMENT PARTICIPANTS

Institutions/Representatives

Alverno College
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*Cynthia Stevens

Governors State University
Robert Press
*Betty Stanley

Hartwick College
Diana Christopulos
*David Jeffres

Metropolitan State University
*James E. Deegan
Robert C. Fox

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(Justin Morrill College)
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*John S. Duley

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*Richard S. Sterne

University of Evansville
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*Larraine R. Matusak

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